Having thus defined the invention, the following is claimed:

1. A method of forming a formable blank into a structural component having a predetermined shape, said method comprising:

(a) providing a shape imparting shell formed from a rigid material, said shell being in the form of at least a first shell section and a second shell section, each of which includes an inner surface defining said predetermined shape, an outer support surface and spaced lateral edges which edges define a parting plane between said two shell sections when said two shell sections are brought together to at least partially form said shell;

(b) providing a first compression force transmitting material with an upper side and a lower side to support said first shell section, said first compression force transmitting material having different physical properties than said first shell section;

(c) providing a second compression force transmitting material with an upper side and a lower side to support said second shell section, said second compression force transmitting material having different physical properties than said second shell section;

(d) placing said formable blank at least partially into said second shell section;

(e) moving said shell sections together to at least partially capture said formable blank in said shape imparting shell; and,

(f) at least partially heating at least a portion of said formable blank by at least one heating element until said formable blank at least partially conforms to at least a portion of the inner surfaces of said first and second shell sections to form said structural component.

2. The method as defined in claim 1, wherein said first shell section is harder and more rigid than said first compression force transmitting material, said second shell section is harder and more rigid than said second compression force transmitting material.

3. The method as defined in claim 1, wherein at least one of said compression force transmitting materials is substantially non-magnetic.

4. The method as defined in claim 1, including the step of forcing a fluid at a high pressure into said formable blank until said formable blank at least partially conforms to at least a portion of the inner surfaces of said first and second shells to at least partially form said component.

5. The method as defined in claim 4, including the step of sensing a pressure of said fluid in said formable blank and controlling the fluid pressure in said formable blank to a preselected value.

6. The method as defined in claim 5, wherein said formable blank is at least partially preheated prior to said forcing fluid into said formable blank.

7. The method as defined in claim 5, wherein said fluid is at least partially preheated prior to said forcing fluid into said formable blank.

8. The method as defined in claim 5, wherein said formable blank is heated at a time prior to said fluid is forced into said formable blank, while said fluid is forced into said formable blank, after said fluid is forced into said formable blank, and combinations thereof.

9. The method as defined in claim 1, wherein at least one of said shell sections includes a silicon nitride, a silicon carbide, alumino-boro-silicate, beryllium oxide, boron oxide, zirconia, and combinations thereof.

10. The method as defined in claim 1, wherein at least one of said shell sections includes a magnetic material, an electrically conductive material, and combinations thereof.

11. The method as defined in claim 1, wherein at least one of said first compression force transmitting materials includes a magnetic material, an electrically conductive material, and combinations thereof.

12. The method as defined in claim 1, wherein at least one of said compression force transmitting materials is a cast compression force material.

13. The method as defined in claim 1, wherein at least one of said first compression force transmitting materials is a machined polymer material.

14. The method as defined in claim 1, wherein said heating is varied along the length of said formable blank to modulate the temperature/time pattern along said length.

15. The method as defined in claim 1, wherein said heating element includes induction heating coils, said induction heating coils are at least partially supported in at least one of said compression force transmitting materials.

16. The method as defined in claim 15, wherein said induction heat coils are at least partially cooled by a coolant having a boiling point higher than water.

17. The method as defined in claim 15, wherein said heating is at least partially varied by varying the frequency of the alternating current of said induction heating coils, varying the spacing between said induction heating coils, varying the power to said induction heating coils, varying the distance of said induction heating coils from at least one of said shell sections, at least partially insulating at least one of said induction heating coils, using at least one capacitor shunt to control at least one of said induction heating coils, and combinations thereof.

18. The method as defined in claim 1, wherein said heating is at least partially varied by including at least one flux concentrator in at least one of said shell sections, at least one of said compression force transmitting materials, and combinations thereof.

19. The method as defined in claim 1, including the step of transferring said structural component into a cooling station to controllably cool said structural component to obtain desired physical properties of said structural component.

20. The method as defined in claim 1, wherein said formable blank is substantially made of metal.

21. The method as defined in claim 1, including the step of applying mechanical stimulation to said formable blank during the forming of said formable blank, said mechanical stimulation including a vibratory actuator at least partially contacting said formable blank, a vibratory actuator at least partially contacting said first die, a vibratory actuator at least partially contacting said second die, frequency pulsing said formable blank, pulsating fluid into said formable blank, and combinations thereof.

22. The method as defined in claim 1, wherein said formable blank includes at least two connected pieces connected by a weld, brazing, solder, adhesive, and combinations thereof.

23. The method as defined in claim 1, wherein said formable blank includes multiple thicknesses.

24. The method as defined in claim 1, wherein said formable blank includes a non-uniform composition.

25. The method as defined in claim 1, wherein said formable blank includes at least one internal stiffening member.

26. A die set for forming a formable blank into a structural component that at least partially conforms to a predetermined shape, said die set comprises a shape imparting shell supported

in compression force transmitting material, said shell formed from a rigid material and being in the form of at least a first shell section and a second shell section, each shell section having an inner surface defining said predetermined shape, an outer support surface and spaced lateral edges which edges define a parting plane between said two shell sections when said two shell sections are brought together to at least partially form said shell, compression force transmitting material being in the form of at least a first compression force transmitting material and a second force transmitting material, said first force transmitting material having an upper side and a lower side to support said first shell section, said first compression force transmitting material having different physical properties than said first shell section, said second force transmitting material having an upper side and a lower side to support said second shell section, said second compression force transmitting material having different physical properties than said second shell section, said first and second force transmitting material being movable relative to one another to at least partially capture said formable blank in said shell sections.

27. The die set as defined in claim 26, including a heating arrangement that at least partially heats at least a portion of said formable blank by at least one axially spaced heating element until said formable blank at least partially conforms to at least a portion of the inner surfaces of said first and second shell sections to form said structural component.

28. The die set as defined in claim 27, wherein said heating varies along the length of said formable blank to modulate the temperature/time pattern along said length.

29. The die set as defined in claim 27, wherein said heating element includes induction heating coils.

30. The die set as defined in claim 29, wherein said induction heating coils are at least partially supported in at least one of said compression force transmitting materials.

31. The die set as defined in claim 29, wherein said induction heat coils are at least partially cooled by a coolant having a boiling point higher than water.

32. The die set as defined in claim 29, wherein at least one of said induction heating coils is at least partially covered by an insulating material.

33. The die set as defined in claim 29, wherein said heating arrangement includes a capacitor shunt that at least partially controls at least one of said induction heating coils.

34. The die set as defined in claim 29, wherein said heating arrangement includes a flux concentrator, said flux concentrator at least partially positioned in at least one of said shell sections, at least one of said compression force transmitting materials, and combinations thereof.

35. The die set as defined in claim 29, wherein said heating arrangement includes a high frequency quick disconnect switch that at least partially controls the power to at least one of said induction heating coils.

36. The die set as defined in claim 26, including a fluid system that directs a fluid at a high pressure into said formable blank until said formable blank at least partially conforms to at least a portion of the inner surfaces of said first and second shells.

37. The die set as defined in claim 36, wherein said fluid system includes a pressure sensor to sense pressure of said fluid in said formable blank, said sensed pressure used to control the fluid pressure in said formable blank to a preselected value.

38. The die set as defined in claim 37, including a preheating arrangement to preheat said formable blank prior to inserting fluid into said formable blank.

39. The die set as defined in claim 37, wherein said fluid system includes a fluid preheater to preheated said fluid prior to inserting said fluid into said formable blank.

40. The die set as defined in claim 26, wherein at least one of said shell sections includes a silicon nitride, a silicon carbide, alumino-boro-silicate, beryllium oxide, boron oxide, zirconia, and combinations thereof.

44. The die set as defined in claim 26, wherein at least one of said shell sections includes a magnetic material, an electrically conductive material, and combinations thereof.

45. The die set as defined in claim 26, wherein at least one of said compression force transmitting materials includes a magnetic material, an electrically conductive material, and combinations thereof.

46. The die set as defined in claim 26, wherein said at least one of said compression force transmitting materials is a cast compression force material.

47. The die set as defined in claim 26, wherein at least one of said compression force transmitting materials is a machined polymer material.

48. The die set as defined in claim 26, including a cooling system that controllably cools said structural component to obtain the desired physical properties of said structural component.

49. The die set as defined in claim 48, wherein said cooling system varies the cooling rate of said structural component, by varying a flow rate of cooling fluid to said structural component, regulating the location of said cooling fluid on said structural component, regulating the temperature of said cooling fluid, and combinations thereof.

50. The die set as defined in claim 26, wherein said formable blank is substantially made of metal.

51. The die set as defined in claim 26, including an end feeder to feed metal from said formable blank into said shell sections while said formable blank is formed.

52. The die set as defined in claim 26, including a mechanical simulator to apply mechanical stimulation to said formable blank during the forming of said formable blank, said mechanical stimulation including a vibratory actuator that at least partially contacts said formable blank, a vibratory actuator that at least partially contacts said first die, a vibratory actuator at least partially contacting said second die, a frequency pulsator that applies a frequency pulse to said formable blank, a fluid pulsator that applies a fluid pulse into said formable blank, and combinations thereof.

53. The die set as defined in claim 26, wherein said formable blank includes at least two connected pieces connected by a weld, brazing, solder, adhesive, and combinations thereof.

54. The die set as defined in claim 26, wherein said formable blank includes multiple thicknesses.

55. The die set as defined in claim 26, wherein said formable blank includes a non-uniform composition.

56. The die set as defined in claim 26, wherein said formable blank includes at least one internal stiffening member.